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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/661,481	09/14/2000	KOJI KAKIZAKI	A-379	9242

802 7590 11/04/2002
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EXAMINER	
MONBLEAU, DAVIENNE N	
ART UNIT	PAPER NUMBER

2828
DATE MAILED: 11/04/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Offic Action Summary

Application No.

09/661,481

Applicant(s)

KAKIZAKI ET AL.

Examiner

Davienne Monbleau

Art Unit

2828

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 24 July 2002.

2a) This action is FINAL. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-3 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) Claim(s) _____ is/are allowed.

6) Claim(s) 1-3 is/are rejected.

7) Claim(s) _____ is/are objected to.

8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11) The proposed drawing correction filed on 7/27/02 is: a) approved b) disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12) The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a) All b) Some * c) None of:

1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) The translation of the foreign language provisional application has been received.

15) Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO-1449) Paper No(s) 7.

4) Interview Summary (PTO-413) Paper No(s). _____
5) Notice of Informal Patent Application (PTO-152)
6) Other: _____

DETAILED ACTION

Information Disclosure Statement

The IDS filed on 4/30/02 has been acknowledged and a signed copy of the PTO-1449 is attached herein.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Kawasuji (U.S. Patent No. 6,188,144). Kawasuji discloses in Figure 7 a gas laser apparatus comprising a laser chamber which contains a pair of discharge electrodes (10) and a magnetic pulse compression circuit, wherein said discharge electrodes are connected to output terminals from said magnetic pulse compression circuit, and wherein a laser oscillating operation is performed by a first half-cycle of a discharge oscillating current waveform of one pulse in which polarity is reversed. (See column 12 lines 4-15).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 2 and 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawasiji (U.S. Patent No. 6,188,144) in view of Hofmann et al. (U.S. Patent No. 6,018,537). Regarding Claim 2, Kawasiji teaches in Figure 7 that said magnetic pulse compression circuit comprises a series circuit including a first magnetic switch (SL2), a first capacitor (C1), a second capacitor (C2), a second magnetic switch (SL3), output terminals at the end of said second magnetic switch (SL3) and said second capacitor (C2), and a peaking capacitor (CP). Kawasiji does not teach the distance between said discharge electrodes, the partial pressure of fluorine, of the specific values of the capacitance and inductance for the circuit components. Hofmann et al. teach in column 15 lines 29-31 that said discharge electrodes are between 12.7 mm and 25.4 mm apart. Hofmann et al. further teaches in column 15 line 65 to column 16 line 16 that said partial pressure of fluorine is less than 0.12% of a total pressure of a laser gas. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the fluorine concentration and the electrodes in Kawasiji, as taught by Hofmann et al., for optimal discharge between said electrodes.

Regarding the specific values of the capacitance and inductance for the circuit components, as well as the rise time, Kawasaji teaches in column 2 lines 4-10 about the rise time and breakdown voltage. Hofmann et al. teach in column 10 line 10 to column 11 line 21 various values for capacitance, voltage and inductance. It would have been obvious to one of ordinary skill in the art at the time of the invention to use specific electrical components based on their properties since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. *In re Boesch*, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). The rise time is a result of the electrical component properties.

Response to Arguments

Applicant's arguments filed 7/24/02 have been fully considered but they are not persuasive. The Applicant argued that the prior art does not teach "at least one half-cycle subsequent to the first half-cycle of the oscillation current". Kawasaji teaches in Figure 4 that the light pulse emits during two current pulses (I1 and I2). The reversed polarity part of the current is not shown. Kawasaji further shows in column 2 lines 64-67 increasing the pulse width of the laser and in column 10 lines 52-55 that the laser light is emitting even after the initiation of the oscillation. It is inherent that the second half of the cycle follows to have a complete cycle. Furthermore, there is no support in the claim as to how this is achieved. Magnetic pulse compression circuits are known in the art and the statement "wherein..." in claim 1 is functional to the compression circuit. The oscillating current has to complete a full cycle. And it is the oscillating current that begins the performance of the laser oscillation.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Davienne Monbleau whose telephone number is 703-306-5803. The examiner can normally be reached on Mon-Fri 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Ip can be reached on 703-308-3098. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

Davienne Monbleau

DNM
October 24, 2002

Paul Ip

PAUL IP
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800